

Title (en)

NANOELECTRONIC DEVICES FOR DNA DETECTION, AND RECOGNITION OF POLYNUCLEOTIDE SEQUENCES

Title (de)

NANOELEKTRONISCHE VORRICHTUNGEN ZUR DNA-DETEKTION UND ERKENNUNG VON POLYNUCLEOTIDSEQUENZEN

Title (fr)

DISPOSITIFS NANOELECTRONIQUES POUR LA DETECTION D'ADN ET LA RECONNAISSANCE DE SEQUENCES POLYNUCLEOTIDIQUES

Publication

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Application

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- US 66887905 P 20050405
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Abstract (en)

[origin: WO2006071895A2] A nanotube device is configured as an electronic sensor for a target DNA sequence. A film of nanotubes is deposited over electrodes on a substrate. A solution of single-strand DNA is prepared so as to be complementary to a target DNA sequence. The DNA solution is deposited over the electrodes, dried, and removed from the substrate except in a region between the electrodes. The resulting structure includes strands of the desired DNA sequence in direct contact with nanotubes between opposing electrodes, to form a sensor that is electrically responsive to the presence of target DNA strands. Alternative assay embodiments are described which employ linker groups to attach ssDNA probes to the nanotube sensor device.

IPC 8 full level

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